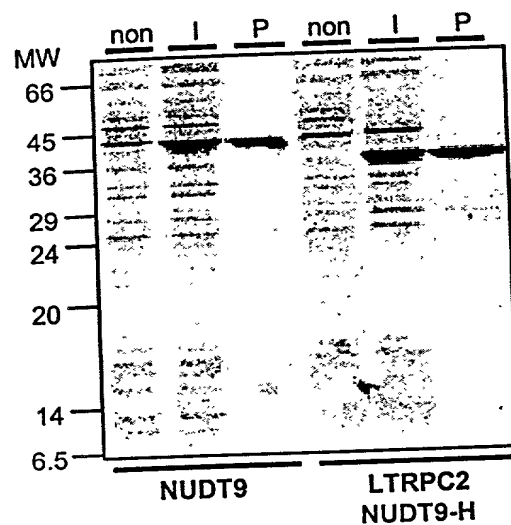


Fig. 1(A)

Library (human)	LTRPC2	NUDT9
1. Bone marrow	+	+
2. Spleen	+	+
3. Brain	+	+
4. Heart	+	+
5. Kidney	-	+
6. Testis	-	+
7. Prostate	-	+
8. Leukocyte	+	+
9. Liver	+	+
10. Lung	+	+
11. Skeletal muscle	-	+
12. Fetal brain	+	+
13. Fetal heart	+	+
14. Fetal kidney	+	+

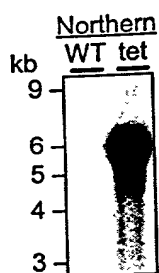
Fig. 1(B)



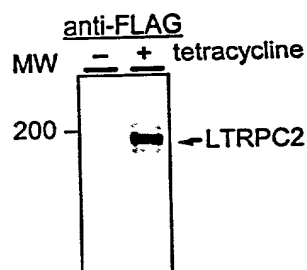
**Fig. 2(A)**

	NUDT9	NUDT9-H
pH optimum	7.5-9.0	8.5-9.5
metal optimum	16 mM Mg <sup>2+</sup>	16 mM Mg <sup>2+</sup>
metal specificity	Mn <sup>2+</sup> will substitute for 50% activity at 5 mM, 0% at 20 mM. Zn <sup>2+</sup> , Co <sup>2+</sup> , Cu <sup>2+</sup> had no significant effect	Mn <sup>2+</sup> , Zn <sup>2+</sup> , Co <sup>2+</sup> , Cu <sup>2+</sup> had no significant effect
substrate specificity	ADP-ribose	ADP-ribose
products	AMP + ribose-5-phosphate	AMP + ribose-5-phosphate
K <sub>m</sub>	0.100 ± 0.014 mM	0.100 ± 0.014 mM
V <sub>max</sub>	11.824 ± 0.302 μMol/min/mg	0.106 ± 0.006 μMol/min/mg

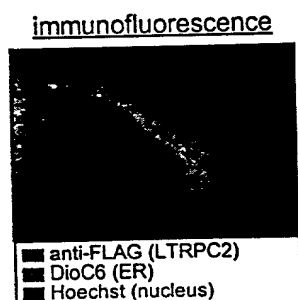
**Fig. 2(B)**



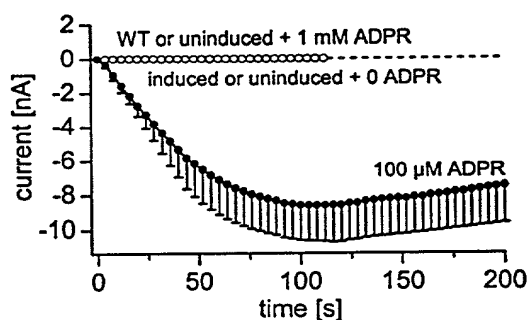
**Fig. 3(A)**



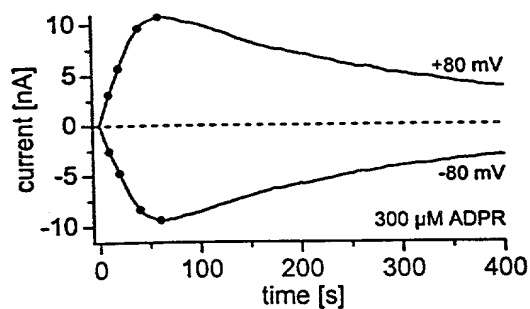
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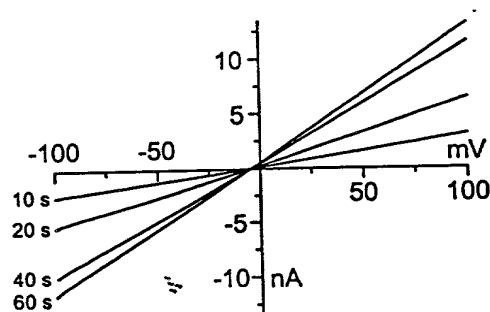
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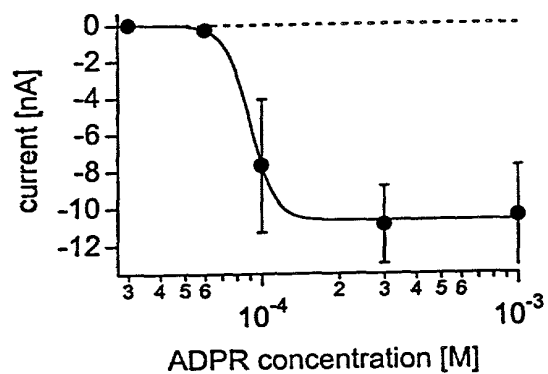
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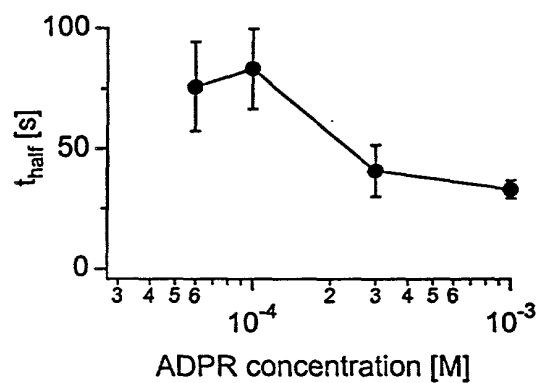
**Fig. 3(E)**



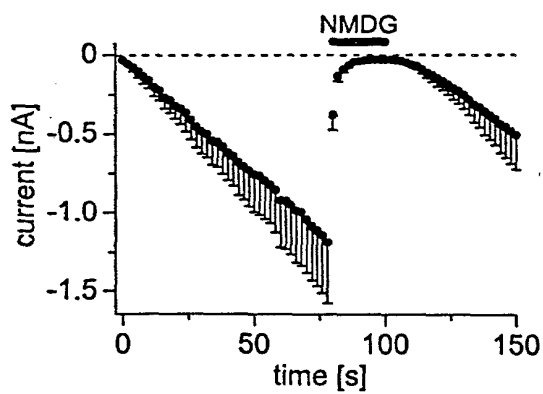
**Fig. 3(F)**



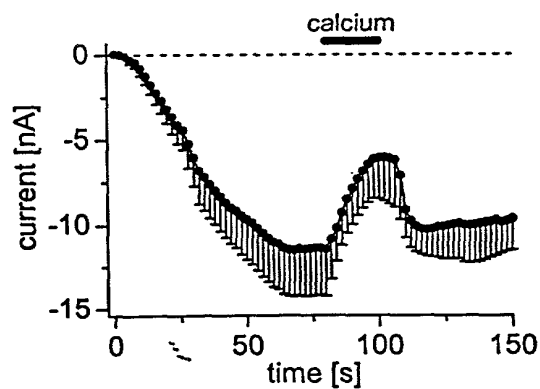
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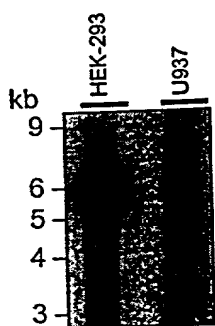
**Fig. 4(B)**



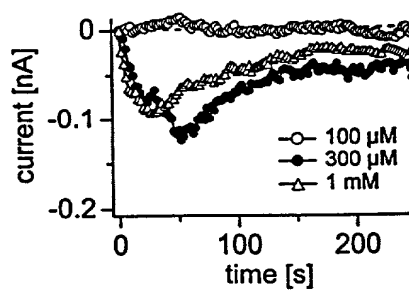
**Fig. 4(C)**



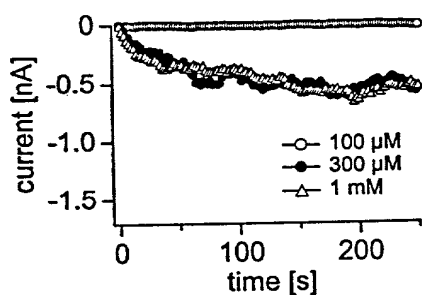
**Fig. 4(D)**



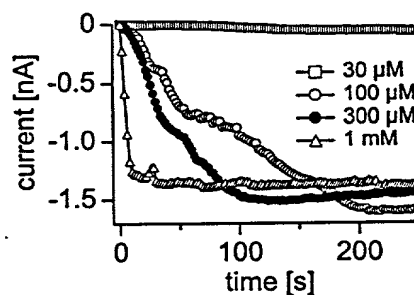
**Fig. 5(A)**



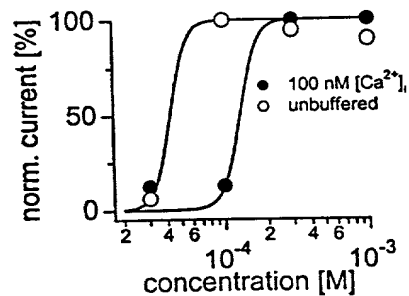
**Fig. 5(B)**



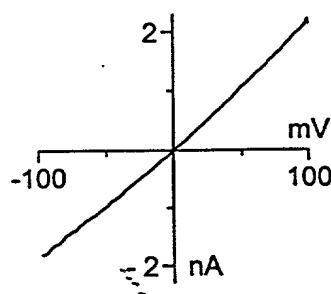
**Fig. 5(C)**



**Fig. 5(D)**



**Fig. 5(E)**



**Fig. 5(F)**

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Fig. 6

```

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**Fig. 7**

(sheet 1 of 2)

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**Fig. 7**

(sheet 2 of 2)



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**Fig. 8**

(sheet 1 of 2)

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3661	ggagtagcac	ggccgccccg	ccgcgcggcc	ccccttcac	ctcctcagcc	acctgcagct
3721	cttcatcaag	aggggtggtcc	tgaagactcc	ggccaagagg	cacaagcagc	tcaagaacaa
3781	gctggagaga	aacgaggagg	cggccctgct	atcctggggag	atctacctga	aggagaacta
3841	cctccagaac	cgacagtttc	agcaaaaagca	gcggcccgag	cagaagatcg	aggacatcag
3901	caataagggtt	gagcccatgg	tgacctgct	ggacctggac	ccactgaaga	gttcgggctc
3961	catggagcag	aggttggcct	ccctggagga	gcaggtggcc	cagacagccc	gagccctgca
4021	ctggatcggtg	aggacgctgc	gggcccagcg	cttcagctcg	gaggcggacg	tccccactct
4081	ggcctcccag	aaggccgcgg	aggagccgga	tgctgagccg	ggaggcagga	agaagacgga
4141	ggagccgggc	gacagctacc	acgtgaatgc	ccggcacctc	ctctacccca	actgccctgt
4201	cacgcgcttc	cccgtgcccc	acgagaaggt	gccctgggag	acggagttcc	tgatctatga
4261	cccacccttt	tacacggcag	agaggaagga	cgcggccgcc	atggacccca	tgggagacac
4321	cctggagcca	ctgtccacga	tccagtacaa	cgtgggtgat	ggcctgaggg	accgccggag
4381	cttccacggg	ccgtacacag	tgcaggccgg	gttgcccctg	aaccccatgg	gccgcacagg
4441	actgcgtggg	cgccgggagcc	tcagctgctt	cggacccaac	cacacgctgt	accccatggt
4501	cacgcgggtg	aggcggaaacg	aggatggagc	catctgcagg	aagagcataa	agaagatgct
4561	ggaagtgcgt	gtgggtgaagc	tccctctctc	cgagcactgg	gccctgcctg	ggggctcccg
4621	ggagccaggg	gagatgctac	ctcggaagct	gaagcggatc	ctccggcagg	agcactggcc
4681	gtcttttgaa	aacttgctga	agtgcggcat	ggaggtgtac	aaaggctaca	tggatgaccc
4741	gaggaacacg	gacaatgcct	ggatcgagac	ggtggccgctc	agcgtccact	tccaggacca
4801	gaatgacgtg	gagctgaaca	ggctgaactc	taacctgcac	gcctgcgact	cgggggcctc
4861	catccgatgg	caggtggttg	acaggcgcat	cccactctat	gcgaaccaca	agaccctcct
4921	ccagaaggga	gagctgagt	tcggggctca	ctactgactg	tgccctcagg	tggccggct
4981	ccagtccata	gacgttcccc	ccagaaacca	gggcttctct	ctcctgagcc	tggccaggac
5041	tcaggctgtt	cctggggccct	gcacatgatg	gggtttggtg	gacccagtgc	ccctcacggc
5101	tgccgcgaag	ctgctgcaga	tgacctcatg	aactggaagg	ggtcaagggtg	acccgggagg
5161	agagctcaag	acagggcaca	ggctactcag	agctgagggg	cccctgggac	ccttggccat
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5341	agagtcggga	tcccctgtgg	ccccctcagg	cctatgtctg	tgaggaaggg	gccctgccac
5401	tctccccaag	agggcctcca	tgtttcgagg	tgccccaaca	tggagccttg	cctggcctgg
5461	gctaggggca	ctgtctgaac	tcctgactgt	caggataaac	tccgtggggg	tacaggagcc
5521	cagacaaagc	ccaggcctgt	caagagacgc	agaggggccc	tgccagggtt	ggccccaggg
5581	accctgggac	gaggctgcag	aagctctccc	tccctactcc	ctgggagcca	cgtgctggcc
5641	atgtggccag	ggacggcatg	agcagaggc	ggggacgtgg	gggcttctg	gtttggtgtc
5701	aacagctcac	aggagcgtga	accatgaggg	ccctcaggag	gggaacgtgg	taaaacccaa
5761	gacattaaat	ctgccatctc	aggcctggct	ggctcttctg	tgctttccac	aaataaagtt
5821	cctgacacgt	ccagggccag	gggctgtgtg	acggctgcct	gaagttctcc	tcgatcccc
5881	ggtgagcttc	ctgcagcctg	tggatgtcct	gcagcccctc	agccctaccc	ccaagtttct
5941	cctctgaccc	atcagctccc	tgtcttcatt	ttcctaaacc	tgggctccag	catcgtcccc
6001	aagcccacca	ggccaggatg	caggcatcca	catgccctcc	tccttggctt	cccctgcgtg
6061	gtggtgccaa	tgtgccctgg	caccctcgca	gaggctccgg	atggagcctg	gggctgcctg
6121	gccactgagc	actggccgag	gtgatgccca	cccttccctg	gacaggcctc	tgtcttccac
6181	ctgacccaaa	gctctctagc	caccccttg	tccccagtat		

**Fig. 8**

(sheet 2 of 2)